the chloroform, and became aware of the operation having been performed, by feeling slight smarting. To remain in bed.

30th.—Visited him in the afternoon. Half an hour after I left him yesterday, he had lost all pain, and has been quite comfortable since; his bowels not having been moved, directed him to take a teaspoonful of the confection at bed-time, and to apply a piece of lint spread with zinc ointment to the wounded parts.

In ten days the wounds had quite healed, also the fissures that existed between the piles; for a short time he took an aperient and tonic mixture. He regained his health, his bowels act regularly, and he has continued perfectly well since.

Remarks.—The foregoing examples of external piles suggest a few observations. The disease in A. B.—undoubtedly arose from high living, conjoined with a deficiency of exercise. The indications were to unload the bowels, to attempt to relieve the local pain by hot fomentations, and to observe the horizontal position, by which the return of blood would be facilitated. When an external hæmorrhoidal tumour is large and tense, it should be divided, and the contained blood evacuated; the operation causes but slight and momentary pain, and affords immediate relief; the wound generally heals quickly, the skin contracts, and the parts assume their former condition. If the patient will not submit to this, his sufferings are prolonged, and a loose flap of skin remains, which, like other tissues and parts that have been altered in structure by disease, is very liable to be again affected from slight causes. Had C. C.—consented to the slight incision requisite being made, I have no hesitation in saying his sufferings would have been much shortened. Piles are often critical in fevers, particularly bilious fevers, as in his case, but possibly he might have escaped them had he been more prudent with regard to diet.

The effects produced by concomitant affections are often more severe than those attending piles alone. Two of the cases narrated were complicated with fissure of the anus; the local application of mild stimulants, conjoined with the treatment adopted for the primary affection, will usually be sufficient to restore the parts to a normal condition: if there be much spasm of the sphincter muscle, the extract of belladonna is an useful adjunct to the unguents employed.

The sufferings of T. R.—were very severe, and might have been spared him had an examination been instituted when he first applied for aid, as a less routine plan of practice would probably have been adopted.

August, 1853.

(To be continued.)

CASE OF

ERECTILE TUMOUR OF THE ORBIT,

CURED BY INFILTRATION WITH THE SOLUTION OF THE LACTATE OF IRON AND PUNCTURE WITH HOT NEEDLES, AFTER THE LIGATURE OF THE CAROTID ARTERY HAD FAILED;

WITH OBSERVATIONS ON THE EFFECT OF THAT SOLUTION IN OBLITERATING THE BLOODVESSELS.

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WILLIAM W.—, a farmer, aged thirty-four years, of good constitution, consulted me, August 1st, 1851, on account of a tumour of the left orbit. The eye was prominent, but could be closed; it rose perceptibly with the pulsation of the arteries, and gave a thrill on being touched. On placing the ear in contact with the tumour, a loud blowing sound was heard, which could be perceived, but less distinctly, over the whole head. The veins of the face were prominent; the head was hot, and the arteries of the neck and head pulsated with unnatural force. Severe pain was often felt in the head, attended with nausea and vomiting; pressure on the left carotid instantly stopped the pulsation and sound.

History.—On the 14th of July, 1851, the patient received a severe kick from a horse on the left side of the lower jaw, which fractured it on the right side, and otherwise severely injured him. On recovering from the shock, he first perceived the sound in his head. This circumstance was calculated to mislead the surgeon into the opinion of a traumatic aneurism;

but on a careful inquiry I found that the left eye had long differed from the other, principally in being short-sighted. Finding compression could not be borne on account of the great tenderness, I advised the ligature of the left common carotid artery; but the patient's mind being unprepared for so serious an operation, he returned home, with the direction to adhere to a rigid diet, rest, and the application of ice or iced-water. Instead of strictly following this advice, he consulted various practitioners, regular and irregular, using by their direction every kind of application. About the 1st of November following he returned to me. The disease was greatly aggravated. The globe of the eye was protruded, the lids could not be closed, the conjunctiva was ulcerated, and the thrill could be clearly heard over the whole of the head. His general health had suffered much, and he has had several attacks, which he called bilious, and for which he had been purged and kept upon a strict diet for many days. Vomiting had increased the size of the tumour; he had severe pain in his head, and could only get relief from large doses of morphine. He had great heat in the head, and only slept by having cloths dipped in cold water kept constantly on it. He was now anxious to have the operation performed, which was done on the 11th November in the usual manner, the artery being tied about an inch below the division. No unusual symptoms occurred. Immediately after the operation the pulsation and sound in the tumour ceased.

The next day, the 12th, he complained of some pain in the right side of the head, and the capillaries of that side became greatly injected from the effort to establish the collateral circulation. A blood-letting of eight ounces gave great relief. The ligature came away on the fourteenth day. Immediately after the operation compression was attempted upon the tumour; but so acute was the sensibility that nothing more than the weight of a fold of linen could be borne. Bags of pounded ice and salt were applied around it, and evaporating lotions upon it. Under this treatment, which, with a rigid diet, was continued, the tumour diminished in size; still on the third day after tying the artery a careful examination detailed a slight pulsation and sound in the tumour. This continued, the tumour still subsiding. He left me on the 10th December. His health continued poor, and he was not able to attend to his business for several months. He noticed the sound of the circulation occasionally after the operation, and it gradually became more constant and stronger. He was often seized with what he called a bilious attack, which continued a day and a half, and was attended with severe retching and vomiting; at such times there was a marked increase of the pain and swelling, which thereafter became constant. In October, 1852, the coma had disappeared, the conjunctiva projected in a fungous shape, and several hæmorrhages occurred, from rupture probably of the superficial vessels.

On the 11th November, 1852, just one year from the first operation, he returned to me. At this time the entire orbit was filled, the lower lid was concealed by the fungous projection, the eye pressed outwards and downwards, and at the root of the nose and inner part of the superciliary ridge there was an elastic swelling, which had caused the absorption of the bone. It was at that point that the pulsations were strongest, and the thrill most distinct. The small vessels of the forehead and side of the nose were greatly enlarged, pulsated strongly, and the latter gave the peculiar thrill of the disease very sensibly. His general health was much impaired, and he had been able to come to the city by railroad only with great difficulty.

The question of the proper treatment to be employed in a case of erectile tumour of the orbit, when the ligature of one carotid has failed to effect a cure, is one of some difficulty. The attention is naturally turned to the other carotid; but even if the ligature of that were likely to succeed, the risk in this case was too great, since it was found that compression of it for a few seconds rendered him perfectly insensible. None of the means resorted to for the purpose of obliterating this vascular tissue had ever been tried on deeply-seated tumours like those of the orbit. On carefully reviewing them all, it was determined to try puncture with hot needles. This was done first on Nov. 13th, 1852; the needle used was of the size of a common knitting-needle, sharpened to a triangular point, and set in a handle of bone. After being heated in the flame of an alcohol lamp, it was plunged into the tumour about an inch from the root of the nose, in the course of the superciliary ridge, and carried downward and backward to a depth of over three inches; on withdrawing it, some bleeding followed, which was readily stopped by slight pressure. For two days there was little pain or swelling; but on the third day the inflammation was acute, the swelling extending over

the face, and presenting an erysipelatous appearance. On the fifth day this began to decline, and in a week was nearly gone. While the inflammation was at its height the tumour was more firm and the thrill less distinct, but as it subsided the elasticity and pulsation rapidly returned.

Nov. 25th.—I repeated the operation, making the puncture half an inch nearer the nose, and carrying it to a depth of only one inch. The effects corresponded with those before described, but were a little less violent. On the third day the sound was diminished, and the firmness of the tumour very sensibly increased. On a careful examination it was found that the morbid tissue extended over the bridge of the nose and down to the inner canthus of the right eye, where a thrill could be distinctly felt.

Dec. 2nd.—A puncture was made on the left side of the bridge of the nose, the needle being carried obliquely upward and to the left side. The inflammation resulting from this puncture was acute, and a superficial suppuration occurred about it. The thrill upon the right side of the nose quite disappeared.

The effect of these three punctures was to limit the spread of the tissue upon the forehead and nose; but the inflammation, although acute and extensive, was superficial, and the mass of the disease at the centre was still unaffected. It was evident that the needles cooled in passing through the tissues, so as not to cauterize much below the surface.

It was therefore determined to change the treatment, and inject a fluid into the centre of the tumour capable of effecting its obliteration. For this purpose a solution of the lactate of iron, of the strength of eight grains to one fluid drachm of distilled water, filtered through paper, was preferred. The reasons for believing in the safety and efficiency of this remedy will be given below.

14th.—I punctured the tumour at its most prominent part with the infiltrating canula, carrying it to the depth of about an inch; on withdrawing the stylet arterial blood followed. A fluid drachm of the above-named solution was immediately thrown in with a small syringe, constructed for the purpose, and the canula withdrawn. The immediate effect was an intense pain in the left temporal region and a flushing of the face, which latter only lasted a few seconds. A chill followed, accompanied with nausea and vomiting. Reaction took place in an hour, but the vomiting continued, and for twenty-four hours all drinks were ejected; pulse 63.

15th.—Vomiting continues; pain less; upper lid much swollen; pulse 65.

16th.—Vomiting less; no pain; has slept well; pulse 60; swelling increased, and so tender as not to bear the slightest touch.

23rd.—For the last six days the vomiting has gradually diminished; the pulse is natural; the tumour is less tender, firm, and the pulsation perceived only at the external angle; frequent lancinating pain is felt in the orbit.

During the whole of this treatment, both of punctures and infiltration, the head has been kept enveloped in bladders filled with a freezing mixture of pounded ice and salt, which was very grateful to the patient. He now began to complain of its being too cold. The heat in the head was reduced to the natural standard, and from the time of the infiltration neither thrill nor sound has been perceived. The veins of the face were much diminished in size, and the pulsation of the arteries reduced to its natural state. A slight pulsation was still perceptible at the external angle of the eye, for which a puncture was made at that point with a hot needle, on Jan. 4th, 1853.

Jan. 10th.—From the time of the last puncture no pulsation has been perceived, the swelling subsiding. At this time an opening was found to exist on the anterior surface of the globe of the eye, which still remains protruded between the lids. This was followed by severe inflammation of the globe, which lasted several days. The discharge from the opening was at first the humours of the eye, afterwards pus, but no blood.

Feb. 5th.—Swelling gradually subsiding; tumour firm, no pulsation; but little pain. The patient slept for the first time for more than a year without some one to keep wet cloths upon the eye, dressed himself, and walked about the house; health good.

March 5th.—Swelling entirely disappeared; the globe of the eye perfectly collapsed; lids closed.

June 6th.—The patient has been pursuing his ordinary occupation for three months; his health appears perfectly restored. The left orbit seems entirely excavated and free from disease.

At this time he was presented at the annual meeting of the Illinois State Medical Society, and examined by a large

number of its members, who concurred in the opinion that the case might be regarded as perfect.

Remarks.—It will readily be understood that so serious an operation as throwing a fluid ounce of a solution of the lactate of iron, at a point almost to saturation, directly into the current of the circulation, would not be ventured upon without the most satisfactory reasons for regarding it, firstly, as safe; secondly, as effectual. I propose now to offer briefly some of the reasons for so regarding it.

In 1850 I was engaged in making inquiries concerning the effects of this salt in certain diseased states of the system, and was induced, from theoretical views, to try the effect when thrown into the veins. Before doing this upon the human subject, I tried it upon a dog, dissolving, rather imperfectly, ten grains of it in one fluid ounce of distilled water. This was thrown at once into the saphena vein of a middle-sized dog, and the experiment was twice repeated without any ill effect.

In December, 1851, I first used it upon the human subject, using in the course of eight weeks nineteen grains of the salt in solution. The largest amount injected at one time was three grains, dissolved in three drachms of distilled water; The number of times it was employed in this subject was nine. It had no ill effects, but the contrary; what is pertinent to our present subject is, that each of the veins into which it was thrown at the bend of the arm was found after a certain length of time to be obliterated, and converted into a firm cord, without there being produced either pain or perceptible inflammation. I have since used it in four other cases,—in two of them once, and in the other two twice each,—without any unfavourable effects. In one of these cases, in which it was used twice, a vein was opened a second time, three days after the first operation, but it was found filled at that point with coagulum, which of course was not disturbed, but the injection made by another vein. Its tendency to obliterate the veins by a gradual process of thickening their coats and obstructing the circulation, was thus made sufficiently apparent, while its safety, used with requisite precautions, was clearly demonstrated. As these cases related solely to the veins, before using it in the case of tumour of the orbit, in which it might enter directly into the arterial circulation, it was thought proper to try it upon an artery in a dog. Accordingly, three grains of the lactate dissolved in three fluid drachms of distilled water, were thrown into the carotid artery of a small dog, and the vessel tied. The only effect was a slight irregularity of the action of the heart, which continued but a few seconds. As this entered directly into the cerebral circulation, its safety when used in much smaller quantity in the human subject might legitimately be inferred. The result, as used upon the tumour, fully justified its employment, although the effects produced were somewhat severe. They were greatly less so, and less dangerous, than those resulting from the ligature of the carotid artery; and used in smaller quantity, repeated if necessary, it seems to promise relief without the necessity of resorting to that operation.

I may add here, that I have since used the same solution upon an erectile tumour of a venous character, of the size of a pigeon's egg, upon the inside of the lower lip, by injecting it at three different times, without any other effect than a slight tenderness, followed by gradual diminution of size and induration of tissue; but the cure is not yet complete.

The applicability of this practice to the treatment of varicose veins and aneurisms will readily suggest itself, but further experiments will be required to determine to what extent it can be relied upon in these cases. The number of the *Revue Médico-Chirurgicale de Paris* for May, 1853, contains some interesting experiments by M. Pravaz, M. Giraldes, and M. Debout, on the coagulation of the blood in the arteries of animals by the injection of a solution of the perchloride of iron, and also three cases in which it had been used for the treatment of vascular tumour in the human subject, in each of which suppuration, and in one gangrene, followed. These results are not of a nature to encourage further trials of that substance; but if we take into consideration that the solution of the perchloride of iron is a substance foreign to the normal constitution of the blood, and produces instant coagulation when brought in contact with it, whereas the solution of the lactate of iron is composed of elements which enter into the composition of the blood; that when thrown into the living vessels it does not coagulate it, but produces a thickening of the coats and a deposition of coagulable lymph from subacute inflammation; the difference between the two results will be readily understood. It is probable that the solution of the lactate, when thrown into the vessels, immediately undergoes decomposition, the acid combining with the soda of the blood, and the base passing into a higher state of oxydation in which

it naturally exists in that fluid. In no case has this solution, when thrown into the blood or into a vascular tumour, shown a tendency to produce suppuration, but in slow inflammation of an adhesive kind and limited extent. In one case, where it was inadvertently pressed in small quantity into the subcutaneous cellular tissue, instead of into the vein as intended, a hard swelling having all the appearance of a boil or small carbuncle was the result; but even this effect will not be produced by it, when used in that manner, unless the solution be in a certain degree concentrated.

CASE OF STONE IN THE BLADDER; LITHOTOMY.

By THOMAS A. FURNESS, Esq., M.R.C.S.,
Newcastle-upon-Tyne.

On the 11th of November last, John P—, a boy of five years of age, was by his mother brought to the Newcastle-upon-Tyne Eastern Dispensary. She gave the following account of the ailment of her child:—"That for upwards of twelve months he had complained on passing urine. Latterly his sufferings had much increased. He had a frequent inclination to micturate, when, from the pain experienced, he cried bitterly; it would occasionally stop, and at such times, by his straining to empty the bladder, fæces would be forced away from the gut. In the midst of his play he would be seized with an irresistible desire to pass urine; and in walking, or more particularly in running, he would stop suddenly with the same impulse. He worked much with his fingers at the glans penis, pulling and pinching at it, and complained of pain there. During the night he was frequently obliged to get out of bed by the urgent wish to empty his bladder, and cried and moaned with the pain. Latterly his general health had become affected; he had lost his appetite; had become thin and weak; showed a disinclination to move; had ceased to play with his companions as he used to do, and lay constantly about the house." To an inquiry as to whether he had ever passed any bloody urine, the answer was in the negative.

The child looked very unhealthy; the face pinched and pallid; the belly tumid; and the limbs shrunk, flabby, and crooked.

The symptoms detailed being the usual ones proceeding from a calculus in the bladder, a catheter was passed to try and ascertain its presence. The urethra was very small, and it was with difficulty that the smallest-sized silver catheter could be insinuated along it. A stone was not felt at that time; but a few days after, upon repeating the operation, I felt the calculus. A little medicine was ordered, to try and improve the child's general health; and a sound was ordered to be passed twice a week, with the view of dilating the urethra, so that a larger-sized staff might be got into the bladder when the operation was performed.

On the 22nd of November, assisted by Mr. Rayne, I proceeded to perform the lateral operation of lithotomy. The patient was put under the influence of chloroform: it took a considerable length of time before he was affected by it. Owing to the small calibre of the urethra, the staff used was perforce a very small one, and some difficulty was experienced by me in directing my knife satisfactorily into the groove. After making the incision through the membranous portion of the urethra and left lobe of the prostate gland, and having had the director withdrawn, the stone—not a large one—was felt lying in the base of the bladder, and very easily extracted.

Immediately after the operation was finished, the child's countenance assumed a death-like appearance; the head sunk back; the lower jaw dropped; there was that filmy appearance came over the eyes which bespeaks death; the surface of the body became cold, the pulse at the wrist vanished, and respiration was suspended. It was no common faint fit, but something more serious. The lithotomy garters were quickly loosened, hot dry flannels wrapped round the extremities, warm turpentine applied over the chest and stomach, friction kept up, and brandy-and-water poured cautiously into the mouth in small quantities at a time. The liquid at first rested in the mouth for a few seconds, then the muscles of deglutition would act, and it would be carried onward to the stomach. Whilst this state continued, there were moments when the child seemed certainly lifeless; but we never relaxed our efforts, and at length we had the satisfaction of seeing animation slowly returning. Still at intervals there was a tendency to relapse into the same state; but the patient began to swallow the brandy better, and after two glasses had been taken, some reaction set in.

The state described continued for nearly half an hour, and

it was not until an hour and a half had elapsed that it was deemed safe to leave the house. At the end of that time the child was sufficiently recovered to take a little warm tea.

The question might be asked—To what cause was the sudden sinking attributable? Was it to the chloroform, a large quantity of which was administered; or was it to the shock on the nervous system, and necessary loss of blood produced by the operation on a debilitated system? From each death has frequently proceeded. All present ascribed it to the latter cause. The chloroform was given with every known precaution; its effects had partly gone off ere the operation was finished, the child having cried out, sensible of pain, several times. Suddenly, and without the least previous symptom of such a thing, the moment after the stone was extracted, which was done very gently and by the first attempt, the boy fell back lifeless, or all but so.

The patient got all his danger over at once, for from this time he never had a bad symptom. On the fifth day part of his urine passed by the natural way, and on the eighth the whole of it did so. By the sixth week the wound was almost healed, and the child walking about.

August, 1853.

LIGATURE OF THE SUBCLAVIAN ARTERY.

By DR. DOMENICO CACCIOPPOLI, Naples.

(Communicated by ARCHIBALD M'LAUGHLIN, Esq., Liverpool.)

THIS operation was performed by Dr. Caccioppoli on the 13th of February, 1853, in the Hospital of Incurables at Naples. The patient was a singer, thirty-three years old suffering from a large spontaneous aneurism under the left armpit. After the *electro-punctura* and other means had been tried without success, a transverse incision was made over the clavicle, and the ligature of Scarpa was applied at the subclavian artery immediately at its exit from the scalenus muscles. At the expiration of one day the pulsation of the tumour reappeared. The operator suspecting that the ligature was relaxed, to avoid the danger of a new ligature, three days after the operation, introduced a small ivory tube as large as a quill, guided by the lancet, into the wound as far as the artery. He was then enabled to contract the artery at pleasure. At the expiration of seventy hours the ivory tube was easily removed. Thirteen days afterwards the ligature fell, and in forty days the wound cicatrized, sense, warmth, and motion existing in the left arm equally with the right. The tumour dispersed both by absorption and by evacuation of dissolved blood from two suppurated punctures. The individual went out of the hospital on the 3rd of April, and continues perfectly well up to the present time.

Naples, June, 1853.

THE CASE OF THE NAVAL ASSISTANT-SURGEONS.

—At a sale of autographs, by Messrs. Puttick and Simpson, on the 15th ult., several most interesting and unpublished letters of Nelson were disposed of. Among them was one of three pages, addressed to Lady Hamilton, from Deal, September 24th, 1801. In the concluding portion of this letter, as showing his exalted opinion of naval medical officers, Nelson proposes to spend thirty guineas to purchase "a silver cup, gilt inside, with an inscription, as a mark of esteem to Dr. Andrew Baird, for his humane attention to the gallant officers and men who were wounded at Boulogne, August 16th, 1801, from their Commander-in-Chief Vice-Admiral Lord Viscount Nelson, Duke of Bronte, &c. What do you think of this? Will you order it?" The letter is signed "Nelson and Bronte." To Dr. Baird he also wrote as follows:—"Mr. (now Sir George) Magrath, whom I admire for his great abilities every day I live, gives me excellent remedies; but we must lose such men from our service if the army goes on encouraging medical men, while we do nothing. I am sure much ought to be done for our naval surgeons, or how can we expect to keep valuable men. I look to you not only to propose it, but to enforce it, who must be anxious to preserve such a valuable set of men to the navy."—Clark and M'Arthur, vol. ii. p. 307. It is a pity there are not any officers at the present time in the navy disposed to follow the example of the illustrious hero of Trafalgar, who well knew how much the health and comfort of his sailors depended on his medical officers. The neglect of this important branch of the service by the executive is likely to be remedied by Parliament, if not in the present, at least in the ensuing session; for not a night passes without petitions from all parts of the kingdom being sent in, most numerous signed, not only by the members of the medical profession, but by the bankers and merchants.—*Woolwich Gazette*.